AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (CURRENTLY AMENDED) An engine transition test instrument comprising:

a virtual engine ~~test means~~ tester for simulating a transition state of a virtual engine in which ~~an engine~~ a rotational speed or torque of the virtual engine changes with time; [[and]]

an actual engine transition ~~test means~~ tester for conducting ~~actual~~ transition ~~tenting~~ testing using an actual engine; and

an actual ~~control~~ controller ~~means that controls that~~ for controlling the actual engine, wherein

the virtual engine ~~test means~~ tester comprises:

~~simulation means~~ a simulator for simulating the behavior of [[an]] the virtual engine by creating a transition engine model ~~created~~ based on data obtained by driving the actual engine while changing a value of at least one controlled factor; and

a virtual controller ~~virtual control means~~ that emulates the actual ~~control means~~ controller and supplies an engine control signal to the ~~simulation means~~ tester simulator[[;]], and

the actual engine transition ~~test means~~ tester comprises a means for switching to [[an]] the engine control signal output from the virtual ~~control means~~ controller from a corresponding portion of an engine control signal output from the actual ~~control means~~ controller for controlling the actual engine, and supplying a switched signal to the actual engine.

2. (CURRENTLY AMENDED) The engine transition test instrument according to claim 1, wherein the virtual engine ~~test means~~ tester further comprises a control value operation means for supplying ~~that supplies~~ a control value for [[the]] a controlled factor to the virtual ~~control means~~ controller, ~~causes~~ to cause simulation results by the ~~simulation means~~ simulator to be displayed on a display means ~~of an operator, and corrects the control value according to an operation by the operator~~.

3. (CURRENTLY AMENDED) The engine transition test instrument according to claim 1, wherein the actual ~~control means~~ controller is configured so as to perform feed back control with referencing [[an]] the output value of the actual engine and the instrument comprises a means for correcting [[an]] the output value from the actual engine that has changed when [[an]] the engine control signal output from the virtual ~~control means~~ controller was supplied to the actual engine to a value before such a change was made, and feeding back the corrected value to the actual ~~control means~~ controller.

4. (CURRENTLY AMENDED) An engine transition test method comprising:

a first step of creating a transition engine model based on data obtained by driving an actual engine while changing a value of at least one controlled factor in a transition state in which an engine rotational speed or torque changes with time;

a second step of emulating ~~actual control means~~ controlling the ~~that controls an~~ actual engine, generating an engine control signal based on a control value set for the controlled factor, and operating the transition engine model as a virtual engine; and

a third step of switching to [[an]] the engine control signal generated in the second step from a corresponding portion of an engine control signal output from ~~actual control~~ the means for controlling the actual engine, and supplying the switched signal to the actual engine.

5. (CURRENTLY AMENDED) The engine transition test method according to claim 4, wherein the second step is repeated while changing the control value, and the third step is performed when [[an]] the output value from the virtual engine satisfies objective performance.

6. (CURRENTLY AMENDED) The engine transition test method according to claim 4, wherein [[an]] the output value from the actual engine that has changed when [[an]] the engine control signal generated in the second step was supplied to the actual engine is corrected to a value before such a change was made, and the corrected value is fed back to the actual ~~control means~~ controller.

7. (CURRENTLY AMENDED) A ~~computer program that realizes, by being installed on~~ computer readable medium having instructions for causing an information processing system[[,]] to perform steps comprising:

~~first means for~~ creating a transition engine model based on data obtained by driving an actual engine while changing a value of at least one controlled factor in a transition state in which an engine rotation speed or torque changes with time;

~~second means for~~ emulating an actual ~~control~~ controller ~~means~~ that controls an actual engine;[[,]]

generating an engine control signal based on a control value set for the controlled factor;[[,]] and

operating the transition engine model as a virtual engine; and

~~third means for~~ switching to [[an]] the engine control signal generated in the second step from a corresponding portion of an engine control signal output from the actual ~~control means~~controller, and thereby supplying the switched signal to the actual engine.

8. (CANCELED)